

DETAILED ACTION

This communication is a final rejection on the merits. Applicant's amendments and remarks were received on October 9th, 2009 and have been fully reviewed by the Examiner. Claims 29-31 have also been added as new claims for further prosecution.

Response to Amendment

1. In response to the Applicant's amendments, the previous rejection made under 35 UCS 112 is no longer applicable and is hereby withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3, 6-14, 17-22, 24-26, and 28 have been considered but are moot in view of the new ground(s) of rejection.

The Examiner would like to point out a point of issue the Applicant has raised with regard to the applicability of the Nixon reference. The Applicant asserts that Nixon "in no way relates to the mitigating effects of RPGs", and consequently fails to fulfill the limitations outlined by the claim.

With respect to the applicability of the Nixon patent, the Applicant is reminded that the utility of an art references is not a prohibiting factor so long as the structure of the claimed invention is taught by said reference. Simply because the Nixon invention functions in a different manner does not render it an invalid piece of art for use in the rejection of the claims.

While the Applicant recites that the textile armor is "for protecting an object from an incoming rocket propelled grenade", the limitation bears little bearing as it does not provide any structural definitions *per se*. Rather, the inventions structure is defined in

the latter limitations as an apparatus capable, according to the Applicant, of performing the function of protecting an object from RPGs. The Applicant appears to remedy this fact by adding the structural limitation of a net “configured to strangulate a nose cone of the rocket propelled grenade” prior to impact. Again a similar situation occurs, in that the function of strangulating a nose cone of an RPG lacks any structural definition within the claims.

Concordant to the amended language used in the apparatus claims, a reference need only, among other things, be *capable* of protecting an object from an RPG by simply obstructing the path of the grenade. The Examiner believes the teachings shown below meets such a limitation in addition to all others previously introduced, predominantly in the fact that the language used is significantly broad in scope, and therefore further rejects the claims as amended.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The method claimed is directed to a process for protecting an object against an RPG that includes the step of providing a mesh net in which “*the circumference of each net mesh section is less than the maximum circumference of a nose cone of a rocket propelled grenade*”, however fails to quantitatively define what the maximum

circumference of that nose cone is. The Applicant appears to acknowledge the fact that there is a variety of RPGs in existence, and it is unclear *in the claims* which precise RPG the invention is directed to. An artisan of ordinary skill in the art would not be capable of calculating the maximum circumference value without knowing what RPG type the Applicant is referencing in the claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3, 7, 9, 14, 17-20, and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nixon (US 6,843,197) further in view of Dietz (US 2,697,054).

As per claims 1, 7, 8, 9, 24 27, and 29, Nixon teaches a net comprising at least one woven textile section, comprising a knotted net formed from a plurality of interconnecting strands, and corresponding supporting means (see Figure 5, the woven textile section is taught in the form of a knotted wire mesh net, which is supported by the barrier net support structure for each barrier module), wherein the arrangement is such that the textile section is fully extended in a wrinkle free manner;

and that the circumference of each individual mesh section is less than two-thirds the maximum circumference of the nose cone of a shaped charge warhead and therefore capable of strangulating a nose cone of a rocket propelled grenade prior to impact (Figures 5, 6a, and 7 illustrated a very fine mesh netting, which is considered to

be much smaller than two-thirds of the maximum circumference of any known munition nose cone).

Nixon fails, however, to explicitly teach that the net is formed of a plurality of interconnecting synthetic plastic strands.

While Nixon falls short of teaching such a feature, the use of synthetic plastic fibers is commonly used in a wide array of armor technologies. Dietz discloses a material for the absorption of kinetic energy from missiles that teaches the use a plastic armor plate comprised of laminae consisting of unwove (and therefore knotless) high tenacity plastic textile material strands (see claims).

Such being the case, it would have then been obvious to an artisan of ordinary skill in the art, at the time in which the invention was made, to modify the net mesh taught by Nixon to comprise the plastic net strands as taught by Dietz in order to reduce the punching shear force of an explosive (see col. 1, ll. 31-38).

Additionally, neither Nixon nor Dietz explicitly teaches that the net strands have a diameter of less than 3mm. The Applicant discusses the 3mm limitation in the specification (on page 6) as being somewhat of a abstract possibility ("As technology advances it is envisaged that it will be possible to utilize net strands having a diameter of less than 3mm"), establishing the fact that the 3mm limitation is not critical to the present design of the invention. The Examiner considers the limitation to be a matter of design choice since the feature bears no criticality to the Applicant's invention, and the courts have upheld that, in utility applications, "matters relating to ornamentation only,

and having no mechanical function, cannot be relied on where claims are no directed to design but are structural claims" (*In re Seid*, 73 USPQ 431).

As per claims 3, Nixon teaches that each net is supported near two adjacent corners, such that the body of the net hangs below (the net is supported at the corners of posts **100, 102, 104, 106, 108** and compression brace **136**) and that the net strands comprise plastic fibers (a 'synthetic' material is taught as an alternative to a wire mesh, and is considered to include plastics as plastics are synthetic compounds having physical properties including a relatively high tenacity, see col. 3, ll. 43-51).

As per claims 13 and 14, the capability of the armor described in the claim is considered to be an intended use which is not considered to be a limiting statement (see *MPEP* § 2106 II. (C)), nevertheless the structure is taught in that Nixon teaches that the textile armor system is configured to disable munitions and explosives used to attack a target (see col. 2, ll. 16-25).

As per claims 17-20, 25, and 26, Nixon teaches an interconnected rigid support frame (via fence posts **100, 102, 104, 106, 108** and compression/tension braces **136** and **138**) wherein the netted textile section is attached at a plurality of evenly spaced attachment points (see Figures 5, 6a, and 7).

Additionally, the system is taught to further include a "standoff distance" that allows for the momentum of an approaching munition to be absorbed prior to coming into contact with the protected target (thereby providing what is considered to be *inertial support* for the system, see col.2, ll. 16-25).

As per claim 28, Nixon teaches wherein the armor is system is deployed to provide a screen between a target object and an incoming projectile (see Figure 1).

7. Claims 6 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon (US 6,843,197) further in view of Dietz (US 2,697,054), as applied in claim 1, further in view of Shirakawa (US 2006/0014920).

As per claim 6 and 10-12, the combination of Nixon/Dietz teaches net strands comprising plastic fibers, but fails to explicitly teach that the fibers polyethylene.

Shirakawa discloses a polyester multifilament yarn material that teaches a fibrous strand material, comprising polyethylene chips, having a diameter of about 3 mm (see paragraph 142).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to substitute the plastic fiber material taught by the combination of Nixon/Dietz with the polyethylene strands taught by Shirakawa since it is taught that the use of polyethylene resins are widely used in fibers for their excellent mechanical and physical properties (see paragraph 2).

8. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nixon (US 6,843,197) further in view of Dietz (US 2,697,054), as applied in claim 1 above, further in view of Ruter (US 3,069,796).

As per claims 21 and 22, the combination of Nixon/Dietz teaches a netted textile armor section, but fails to teach that the section is provided with camouflage garnishes or coloring.

Ruter discloses camouflage material that teaches camouflage nets garnished with colored strips are well-known and widely used in military applications (see col. 1, ll. 11-27).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the net taught by the combination of Nixon/Dietz to include the camouflaging pattern taught by Ruter in order to provide a sheet of textile or plastics which with a camouflaged effect (see col. 1, ll. 28-46).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMIR ABDOSH whose telephone number is (571)

270-5799. The examiner can normally be reached on Monday through Friday 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571) 272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SIA/

/Troy Chambers/
Primary Examiner, Art Unit 3641